THE UNIFIED THEORY OF MATTER

According to this theory, all matter consists of spinning particles of the same size, whose spin velocity determines the state of matter that the particles take.

by Samuel P. Costin © 1999

PO Box 234 Hamilton Hill, WA 6169 Australia E-mail: jenninecostin@netscape.net Is it possible that the structure of matter is more simple than we think, that one simple model can explain all of Nature as we know it? As an observer of Nature, one may marvel at its beautiful simplicity. When one observes Nature, it becomes apparent how the simple structure is replicated at finer and finer detail. For example, the structure of a tree is duplicated in the limbs, the branches, the twigs, the leaves and even the veins of a leaf.

his repetition of structure may be observed throughout nature. If this repetition were applied to matter at the tiniest particle level, how would the laws of Nature fit? Physicists believe that the atomic world resembles the astronomical Universe in miniature. They propose planetary atoms consisting of electrons orbiting around a nucleus. At its most basic level, however, the Universe consists of spherical, spinning bodies such as stars and planets.

Could matter consist entirely of continuously spinning spherical bodies? Would any of the laws of physics be relevant to such a structure? I have been researching this question for several years and have found to my surprise that all the laws of physics appear to be explained by this one very simple structure. Experimental physics results also appear to confirm this very simple concept.

The acid test for any theory is its confirmation by experimentation. Since its inception over one hundred years ago, the electron theory has been continually changed to make it fit the experimental results. At present state, the nucleus is now believed to consist of 11 basic particle types and the number is predicted to keep growing.

This theory proposes simply that all matter consists of spinning particles which are the same size. The spin velocity will dictate the state of matter which the particles will take. To describe this in line with conventional practice, the spin velocities could be divided up into bands which we will call "elements" (see table 1). Also, forces such as electromagnetism, gravity, electricity or even heat may be easily explained in terms of particle spin.

Particles of common spin velocity will form a group or mass of that element—a piece of iron, for example. The particle spin velocity (PSV) in this group is maintained by the momentum of the particles that surround it. As may be seen in figure 1, if one particle spins, the adjacent particles will be caused to spin in the opposite direction. The result is matter in perfect symmetry, with an equal number of anticlockwise-rotating particles (perhaps negatively charged) and clockwise-rotating particles (therefore positively charged).

In its natural state, matter consists of particles spinning at a constant velocity. If something causes the particles to accelerate, then electromagnetism will occur. Hertz described this very well with his spectrum of electromagnetism (see figure 2). The states of electromagnetism are directly related to particle spin acceleration.

A NEW SPIN ON LIGHT

Light consists of regions of particles whose spin velocity has been accelerated to the visible light spectrum. Light is only one of many states of matter whose spin may be accelerated. For example, a beam of light may consist of a stream of atmospheric particles accelerated to the visible light spectrum. As with any stream, the particles in the centre would be spinning fastest. Due to the influence of the unaccelerated particles at the edges of the beam, the spin velocity slows down away from the centre. As a result, if the stream is expanded with a prism, the colours of the visible light spectrum will be observed (see figure 3).



Figure 1. All matter consists of a sea of particles whose direction of spin determines their charge.

Einstein, in 1905, noticed that electricity could be measured in the reflection of light off a metal surface. He believed that the light must be pushing electrons out of the metal. This cannot be the case, however, as it is known that long-term exposure to light does not cause any change in the metal's atomic structure. In accordance with this theory, Einstein's experiment indicated a direct relationship between the many forms of electromagnetism. Matter consists not of particles acting alone, nor of waves of mysterious energy. All matter consists of a sea of spinning particles acting in influence of each other. Hence, when Einstein measured an increase in voltage at the angle of incidence to the beam of light, he was in fact measuring particle spin acceleration (see figure 4).

So far it has been stated that the atomic mass of the elements, light and even electricity are all due to particle spin. For this theory to be correct, there must be a direct relationship between these factors.

Physicist Neils Bohr demonstrated that a direct relationship exists between the atomic weight of the elements and their X-ray spectra. In fact, this relationship proved so simple that it became possible to fix, without ambiguity, the atomic number to all elements.

In the visible light spectrum, Rydberg succeeded in tracing a general relationship between the hydrogen spectrum and the spectra of other elements. This relationship of the elements with the hydrogen spectrum and the atomic weight leads one to regard each separate electromagnetic spectrum as a signature of the spin velocity of a particle in the accelerated state.

When the spectra, for which Rydberg's laws hold, are excited by means of electric discharge, they are often called the "spark spectra". Fowler found that the Rydberg constant is multiplied by four when particles

are exposed to such a strong discharge. If each spectrum is a signature of PSV, then the 4x relationship found by Fowler is indicative of accelerated particle spin when an electrical discharge is effected.

As stated previously, an element consists of particles with common spin velocities. Electricity results when a significant difference in particle spin is caused to exist within such an element.

Potential difference (voltage) is defined therefore as the difference in spin velocity between the particles in a body. Two common examples are electricity flow through a length of copper wire and a lightning flash in the atmosphere.

The same effect can be reproduced as static electricity when low PSV materials (such as textiles) are rubbed together, creating an acceleration of particle spin on the surface of the object. This effect is very weak, however, and the spin velocity of the adjacent particles soon brings the accelerated particles back to normal spin velocity.

WAVE-PARTICLE DUALITY

In the 1890s Max Planck noticed hints, in the shape of the spectrum of light emitted by very hot objects, that something might be missing in our understanding of light, for light appeared to travel both as particles and as waves. This observation creates a serious



Figure 2. The spectrum of electromagnetic waves, running from radio waves at very long wavelengths (very low frequencies) to gamma rays at very short wavelengths (very high frequencies).

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problem for conventional physics, as it has been established that energy travels as projectiles called "electrons".

To investigate this problem, quantum physicists developed an experiment using two slits in a wall. To illustrate the effect of particles, a series of marbles or bullets was projected in a stream towards a screen in which there were two parallel slits (see figure 5, board 1). On the other side of the screen was a device which monitored the path of the projectiles.

Firstly, one slit was opened, then the other, followed by both slits at once. The distribution is recorded at figure 5, board 2. The recording with each slit opened individually is seen at board 3, with the combined effect seen at board 4. The distribution of the positions may be seen on figure 5(a).

Next, the experiment was repeated with water to simulate wave action, the results of Figure 4. Einstein measured an increase in voltage at the angle of incidence to the ray of light. which are at figure 5(b).

Finally, the experiment was repeated by shining a beam of light through a slit. The array of sensors consisted of both photographic plates and electronic sensors. The conventional theory of matter proposes particles called "electrons" being fired through the slit. As may be seen in figure 5(c), however, these "particles" acted as waves. This contradiction of the current theory has not been resolved by conventional physics to this day.

In contrast, the outcome of the experiment fits very well with this theory. When a beam of energy is directed at the slits, it presents as waves of accelerated particle spin, travelling through a sea of particles.

MASS AND DENSITY

Einstein predicted in 1915 in his general theory of relativity that rotating bodies generate a kind of gravitational force-the gravitomagnetic force-by virtue of their rotation.

The faster a particle is spinning, the greater its attraction to other particles. Hence, not only does particle spin determine the atomic weight of a single particle, but it also dictates the distance between particles (density). For this reason, elements of high atomic weight also have high densities. Essentially, the faster PSV holds a solid mass together in a sea of slower-spinning atmospheric particles.

GRAVITY

By this theory, particle spin velocity (PSV) increases the closer one is to a body, i.e., planet Earth. For example, our atmosphere has a higher density nearer the Earth, reducing to a vacuum pressure out in space. Density is an indicator of particle spin.

Any object descending towards the Earth will therefore encounter increasing PSV surrounding it. The surface of that object which is closest to Earth will always experience the fastest PSV. Attraction between particles increases with spin velocity. Therefore the object will be 'attracted' towards Earth, since this is the direction in which the fastest particle spin occurs (see figure 6)

This theory may be easily tested by accelerating the particle spin around an object. If this theory holds true, the rate of fall of an object should be slowed if an electric charge were applied to that object during free-fall. The greatest (albeit small) effect would be achieved with an AC or pulsed DC charge.



MAGNETISM

The scale of atomic weights (AW) gives names to particles of stable spin velocity (elements). It is graduated in order of increasing spin velocity. The state of matter changes from a gas to a solid as the particle spin increases. As a solid, spin velocity continues to increase, the particles of the solid being drawn closer together.

As the PSV increases to AW58 (iron), the forces between particles increase and the distance between particles decreases. At about this point, if the PSV is accelerated for a sufficient period of time, all particles within the mass will achieve a similar velocity.

When the accelerator is removed, the internal particles will lose their accelerated spin at a very slow rate. The result will be a permanent magnet, as the particles in the mass are in a state of very slow spin deceleration. It is this deceleration that dictates the orientation of the north and south poles. Change the deceleration to acceleration and the poles will reverse. This may be observed in electromagnets and also in the Earth as it goes through changes in its internal particle spin.

OXIDATION

Continue not very far up the table of elements to AW63 (copper). The degree of forces and distances between the particles now inhibits the maintenance of the very-long-term



Figure 3. A beam of light is a stream of particles with accelerated spin velocity. The particles in the centre of the beam are spinning faster than the particles on the outside. This is seen by the spectrum of visible light colours through the beam.

ATOMIC NUMBER	ATOMIC WEIGHT	ELEMENT	ATOMIC NUMBER	ATOMIC WEIGHT	ELEMENT	ATOMIC NUMBER	ATOMIC WEIGHT	ELEMENT
1	1.00794	Hydrogen	37	85.4678	Rubidium	73	180.9479	Tantalum
2	4.0026	Helium	38	87.62	Strontium	74	183.85	Wolfram
3	6.9410	Lithium	39	88.9059	Yttrium	75	186.207	Rhenium
4	9.0122	Beryllium	40	91.22	Zirconium	76	190.20	Osmium
5	10.81	Boron	41	92.9064	Niobium	77	192.22	Indium
6	12.011	Carbon	42	95.94	Molybdenum	78	195.08	Platinum
7	14.0067	Nitrogen	43	14.0067	Technetium	79	196.9665	Gold
8	15.9994	Oxygen	44	101.07	Ruthenium	80	200.59	Mercury
9	18.9984	Fluorine	45	102.9255	Rhodium	81	204.383	Thallium
10	20.179	Neon	46	106.42	Palladium	82	207.2	Lead
11	22.98977	Sodium	47	107.8682	Silver	83	208.9804	Bismuth
12	24.305	Magnesium	48	112.41	Cadmium	84	(209)	Polonium
13	26.98154	Aluminium	49	114.82	Indium	85	(210)	Astatine
14	28.0855	Silicon	50	118.69	Tin	86	(222)	Radon
15	30.97376	Phosphorus	51	121.75	Antimony	87	(223)	Francium
16	32.06	Sulfur	52	127.68	Tellurium	88	226.0254	Radium
17	35.453	Chlorine	53	126.9045	Iodine	89	227.0278	Actinium
18	39.948	Argon	54	131.29	Xenon	90	232.0381	Thorium
19	39.0983	Potassium	55	132.9054	Caesium	91	231.0359	Protectinium
20	40.08	Calcium	56	137.33	Barium	92	238.0289	Uranium
21	44.9559	Scandium	57	139.9055	Lanthanum	93	237.0482	Neptunium
22	47.88	Titanium	58	140.12	Cerium	94	(244)	Plutonium
23	50.9415	Vanadium	59	140.9077	Praseodymium	95	(243)	Americium
24	51.996	Chromium	60	144.24	Neodymium	96	(247)	Curium
25	54.9380	Manganese	61	(145)	Promethium	97	(247)	Berkelium
26	55.847	Iron	62	150.36	Samarium	98	(251)	Californium
27	58.9332	Cobalt	63	151.96	Europium	99	(252)	Einsteinium
28	58.69	Nickel	64	157.25	Gadolinium	100	(257)	Fermium
29	63.546	Copper	65	158.9254	Terbium	101	(258)	Mendelevium
30	65.38	Zinc	66	162.50	Dysprosium	102	(259)	Nobelium
31	69.72	Gallium	67	164.9304	Holmium	103	(260)	Lawrencium
32	72.59	Germanium	68	167.26	Erbium	104	(261)	(Unnilquadium)
33	74.9216	Arsenic	69	168.9342	Thulium	105	(262)	(Unnilpentium)
34	78.96	Selenium	70	173.04	Ytterbium	106	(263)	(Unnilhexium)
35	79.904	Bromine	71	174.967	Lutetium			
36	83.80	Krypton	72	178.49	Hafnium			

 Table 1. The table of Standard Atomic Weights. The Atomic weight of an element is a product of the base mass of all matter (which is constant) and the particle spin velocity. It is therefore variable as it depends entirely upon the particle spin environment in which it is measured.

accelerated spin associated with magnetism. Hence, most of the change in spin velocity will occur at the surface.

The influence of the adjacent slower-spinning atmospheric particles slows down the spin velocity of the surface copper particles, resulting in oxidation. The acceleration of the air particles is negligible.

RADIATION

At faster spin such as AW87 (strontium), the effect on the strontium particles is still oxidation; however, the effect on the surrounding air particles is greater. The spin velocity of the air particles has now accelerated, resulting in radiation.

Radiation is the acceleration by a body of the spin velocity of the surrounding particles. This may be seen as in figure 7, showing the radiation from a sample of AW226 (radium) that was observed on the surrounding air.

It is important at this point to reiterate that when referring to these effects, it is the degree of particle spin acceleration which has more effect, rather than the final spin velocity.

THE CROOKES TUBE EXPERIMENT

The principles described so far may be very well illustrated by the Crookes tube experiment. Crookes introduced an electrical charge of 10,000 to 15,000 volts AC from an induction motor into a long glass tube, 4 cm in diameter and 150 cm long, which was filled with a gas. As he lowered the pressure in the tube, colours formed inside. These colours changed as the pressure was reduced.

The electrical charge accelerated the particle spin. Normally this would appear as a spark as the acceleration is conducted through the gas particles. When the pressure inside the tube is reduced, however, the distance between the particles increases and this spin acceleration will not be so easily conducted. Hence we will not see a spark, but, instead, we will see the colours



Figure 5. The slit experiment showed that energy travels in waves, not particles. This theory proposes that energy travels in waves of accelerated particle spin. Hence, the flow of energy may be more accurately simulated by waves through water than by the firing of a bullet.

associated with reducing particle spin the further away the effect is from the source.

SUMMARY OF THE CROOKES TUBE EXPERIMENT

• The PSV frequency at the right-hand side is greater than visible light, reducing away from the charge point. PSV frequency at the left-hand side is in the violet spectrum, also reducing from the charge point.

• The gas PSV reduces as the distance from the two sources of thrust increases. The violet striations result as the particles lose their spin in groups without thrust from the particles of the adjacent striation.

• Eventually the violet striations slow down to the blue frequency in which a transparent spectrum exists. Localised accelerated spin velocity continues to occur at the charge points in the violet frequency.

• The spin velocity at the charge points remains constant due to conduction between the particles of the metal and the adjacent air particles. The drop of PSV in the tube continues down through blue, green, yellow to orange and red.

• The tube will now become transparent again as the PSV slows below the visible light frequency. The spin velocity at the charge points remains constant. However, the gas PSV in the tube has slowed to less than the green visible light frequency.

EXPANSION

In a body in its natural state, all internal particles are spinning at a constant velocity (neglecting the very slow spin decay that all matter experiences). Their distance apart will therefore be constant.

If the spin of these particles is suddenly accelerated, then the particles will be thrust further apart by the unstable forces around each particle. This will result in an increase in size of the body. For example, electrify the air between two sheets of metal and the air will expand, forcing the two sheets apart. Cut the current and the air PSV returns to normal, causing the sheets to fall back down (see figure 8). Similarly, raise a body's temperature and it will increase in size. Take the source of spin acceleration away, and spin velocity will return to normal, as will the size of the object.



Figure 6. Gravity occurs when a mass of spinning particles is attracted to those surrounding particles that spin fastest. These are the particles nearest the Earth.

PARTICLE ACCELERATORS

Another illustration of this theory is the modern particle (spin) accelerator. A pulse of very high voltage is conducted into a gas at very low pressures in the same way that a Crookes tube works.

A sudden acceleration of particle spin is initiated at the source of the pulse. The extremely high acceleration increases conduction between particles.

The particles' spin acceleration occurs in all directions around the source. In one particular direction, the particle spin is further accelerated as it passes through a long gallery of magnets. In modern accelerators a pulse is generated at opposite ends of the gallery, with the spin accelerations meeting at the middle.

Surrounding the collision (influence) point are arrays of electronic detectors. The spin acceleration of the particles around the colliding spins is registered on the arrays as sudden increases in voltage. The particle accelerators therefore are not firing particles like a gun; rather, they are imposing a faster and faster spin on a line of particles in the accelerator.

THE CREATION OF ASTRONOMICAL BODIES

Just as this theory was developed by observing nature at the astronomical scale, so it can be applied back to this level to explain its characteristics.

The Universe consists of groups of extremely-fast-spinning particles (stars and planets) in a sea of very-slow-spinning particles (space). Occasionally the unstable nature of accelerated spin bodies (stars) will result in their destruction (supernova). This will



Figure 7. Particle spin velocities are increased in all directions from a speck of radium salt on the surface of a photographic plate covered with a special emulsion. The increased charge of the particles leaves tracks in the emulsion which appear as dark lines on the negative image. The central blob is about one tenth of a millimetre across.

send waves of extremely fast particle spin throughout space. Should two such explosions occur in close proximity to each other, the joining waves will either cancel each other out or double the spin acceleration of a group. These accelerated particles

will cause a chain reaction through acceleration of the adjacent particles, eventually resulting in the formation of a star.

The spin velocity of the space particles surrounding the star will be accelerated far out into space. The same forces that created the star will in turn create bodies (planets) of lesser particle spin around the star. The spin acceleration of these bodies will decrease at a faster rate than the star, due to their slower initial spin and smaller size.

THE FORMATION OF AN ATMOSPHERE

This theory must therefore also hold for the outer regions of the planets themselves. On the surface of a planet, a region of particle spin that is slower than solid and faster than space would exist. As with the solar system, this region would therefore consist of gas, such as with the Earth's atmosphere.

CONCLUSION

Just as this theory

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characteristics.

This paper is only a very brief introduction to a theory which appears to explain both known physics and phenomena which contradict conventional theory. It appears to achieve this without ambiguity, contradiction or complication.

About the Author:

Samuel P. Costin is a freelance science writer with a qualification in the applied sciences. Over the past few years he has been developing the Unified Theory of Matter, and concludes that it appears to explain the structure of Nature in all her beautiful simplicity.



Figure 8. The gold leaf electroscope was one of the earliest instruments used in studying electrical phenomena.